CCNSO MEMBERS MEETING

IANA Names Function Update

ICANN 58: Copenhagen, Denmark
15 March 2017

PTI | An ICANN Affiliate

Agenda

- **PTI Board Update**
  Lise Fuhr
- **Performance Reporting**
  Naela Sarras
- **PTI FY18 Budget**
  Elise Gerich
- **Technical Development and Policy Implementation Update**
  Kim Davies

PTI Board Update

Lise Fuhr

Lise Fuhr

PTI Board of Directors

Performance Reporting

Naela Sarras

CSC Reports

Monthly Performance Report from Public Technical Identifiers (PTI) to the Customer Standing Committee (CSC)

February 2017

Summary of Performance .....
Exceptions and Narrative.....
Detailed Performance .....
Definitions.....

2 Monthly Performance Report from Public Technical Identifiers (PTI) to the Customer Standing Committee (CSC)

Summary of Performance

Metric	Category	Expected	Actual	Detail
Submission				
Acceptance Recognition	Routine (Technical)	≤60s (95.0%)	✓ 1.72s	p5
Acceptance Recognition	Routine (Non-Technical)	≤60s (95.0%)	✓ 2.34s	p5
Acceptance Recognition	gTLD Creation/Transfer	≤60s (95.0%)	✓ 1.44s	p6
Acceptance Recognition	ccTLD Creation/Transfer	≤60s (95.0%)	✓ 0.72s	p6
Acceptance Recognition	Other Changes	≤60s (95.0%)	✓ 1.95s	p6
Manual Lodgment Time	Routine (Technical)	≤3d (95.0%)	✓ 0.92d	p7
Manual Lodgment Time	Routine (Non-Technical)	≤3d (95.0%)	✕ 4.07d	p7
Manual Lodgment Time	gTLD Creation/Transfer	≤3d (95.0%)	✓ —	p8
Manual Lodgment Time	ccTLD Creation/Transfer	≤3d (95.0%)	✕ 3.38d	p8
Manual Lodgment Time	Other Changes	≤3d (95.0%)	✓ —	p8
Technical Checks				
Technical Check (First)	Routine (Technical)	≤50m (95.0%)	✓ 6.89m	p9
Technical Check (First)	gTLD Creation/Transfer	≤50m (95.0%)	✓ 4.1m	p9
Technical Check (First)	ccTLD Creation/Transfer	≤50m (95.0%)	✓ 2.6m	p10
Technical Check (First)	Other Changes	≤50m (95.0%)	✓ —	p10
Technical Check (Retest)	Routine (Technical)	≤3m (95.0%)	✓ 2.1m	p11
Technical Check (Retest)	gTLD Creation/Transfer	≤3m (95.0%)	✓ —	p11
Technical Check (Retest)	ccTLD Creation/Transfer	≤3m (95.0%)	✓ —	p12
Technical Check (Retest)	Other Changes	≤3m (95.0%)	✓ —	p12
Technical Check (Supplemental)	Routine (Technical)	≤1m (95.0%)	✓ 0.61m	p13
Technical Check (Supplemental)	gTLD Creation/Transfer	≤5m (95.0%)	✓ 0.28m	p13
Technical Check (Supplemental)	ccTLD Creation/Transfer	≤5m (95.0%)	✓ 0.29m	p13
Technical Check (Supplemental)	Other Changes	≤5m (95.0%)	✓ —	p13
Contact Confirmations				
Email Dispatch	Routine (Technical)	≤60000ms (95.0%)	✓ 1ms	p14
Email Dispatch	Routine (Non-Technical)	≤60000ms (95.0%)	✓ 1ms	p14
Email Dispatch	gTLD Creation/Transfer	≤60000ms (95.0%)	✓ 1ms	p15
Email Dispatch	ccTLD Creation/Transfer	≤60000ms (95.0%)	✓ 0ms	p15
Email Dispatch	Other Changes	≤60000ms (95.0%)	✓ 1ms	p15
Recognition of Confirmation	Routine (Technical)	≤60000ms (95.0%)	✓ 0ms	p16
Recognition of Confirmation	Routine (Non-Technical)	≤60000ms (95.0%)	✓ 0.4ms	p16
Recognition of Confirmation	gTLD Creation/Transfer	≤60000ms (95.0%)	✓ 0ms	p17
Recognition of Confirmation	ccTLD Creation/Transfer			
Recognition of Confirmation	Other Changes			
Staff Processing				
Validation and Reviews	Routine (Technical)			
Validation and Reviews	Routine (Non-Technical)			
Validation and Reviews	gTLD Creation/Transfer			
Validation and Reviews	ccTLD Creation/Transfer			
Validation and Reviews	Other Changes			
Third Party Approval	ccTLD Creation/Transfer			
Implementation				
Root Zone Publication	Routine (Technical)			
Root Zone Publication	gTLD Creation/Transfer			
Root Zone Publication	ccTLD Creation/Transfer			
Root Zone Publication	Other Changes			
Notification of Completion	Routine (Technical)			

4 Monthly Performance Report from Public Technical Identifiers (PTI) to the Customer Standing Committee (CSC)

Exceptions and Narrative for Reporting Period

Metric	Category	Expected	Actual
Manual Lodgment Time	Routine (Non-Technical)	3d	4.07d
Primary cause:	Clarification needed from requestor		
Analysis/Comments:	Request started with an inquiry on how to make changes in the IANA root zone database for a TLD. However, no change request was included in the initial inquiry. After several iterations with the requestor, it was clarified that the currently listed contacts have changed. Staff explained the procedure to lodge a request in this case. The CSC has previously recommended not including clarification time in this SLA. This request is on the list of items to address in the statistics collection tool to revise the calculation of manual lodgment time to account for clarification time.		
Manual Lodgment Time	ccTLD Creation/Transfer	3d	3.38d
Primary cause:	Clarification needed from requestor		
Analysis/Comments:	Request was submitted via the template form and required staff to lodge it in the RZMS system. However, a clarification was needed first from the requestor. Staff requested the clarification right away but the wait time to receive the response spanned over a weekend. The CSC has previously recommended not including clarification time in this SLA. This request is on the list of items to address in the statistics collection tool to revise the calculation of manual lodgment time to account for clarification time.		
Validation and Reviews	ccTLD Creation/Transfer	60d	93.32d
Primary cause:	Aspirational target		
Analysis/Comments:	Request is an IDN ccTLD delegation request lodged in April 2016. A ccTLD delegation request requires extensive amount of communications with the requestor, especially if the request is not fully documented when it is first submitted. Another factor that contributed to increased staff processing time was the need to clarify if the IANA Stewardship transition impacted the ccTLD delegation/transfer process, specifically the role of the ICANN Board going forward.		

Monthly Performance Report from Public Technical Identifiers (PTI) to the Customer Standing Committee (CSC) 5

Detailed Performance for Reporting Period

Submission

Acceptance Recognition

Time for ticket confirmation to be sent to requester following receipt of change request via automated submission interface.

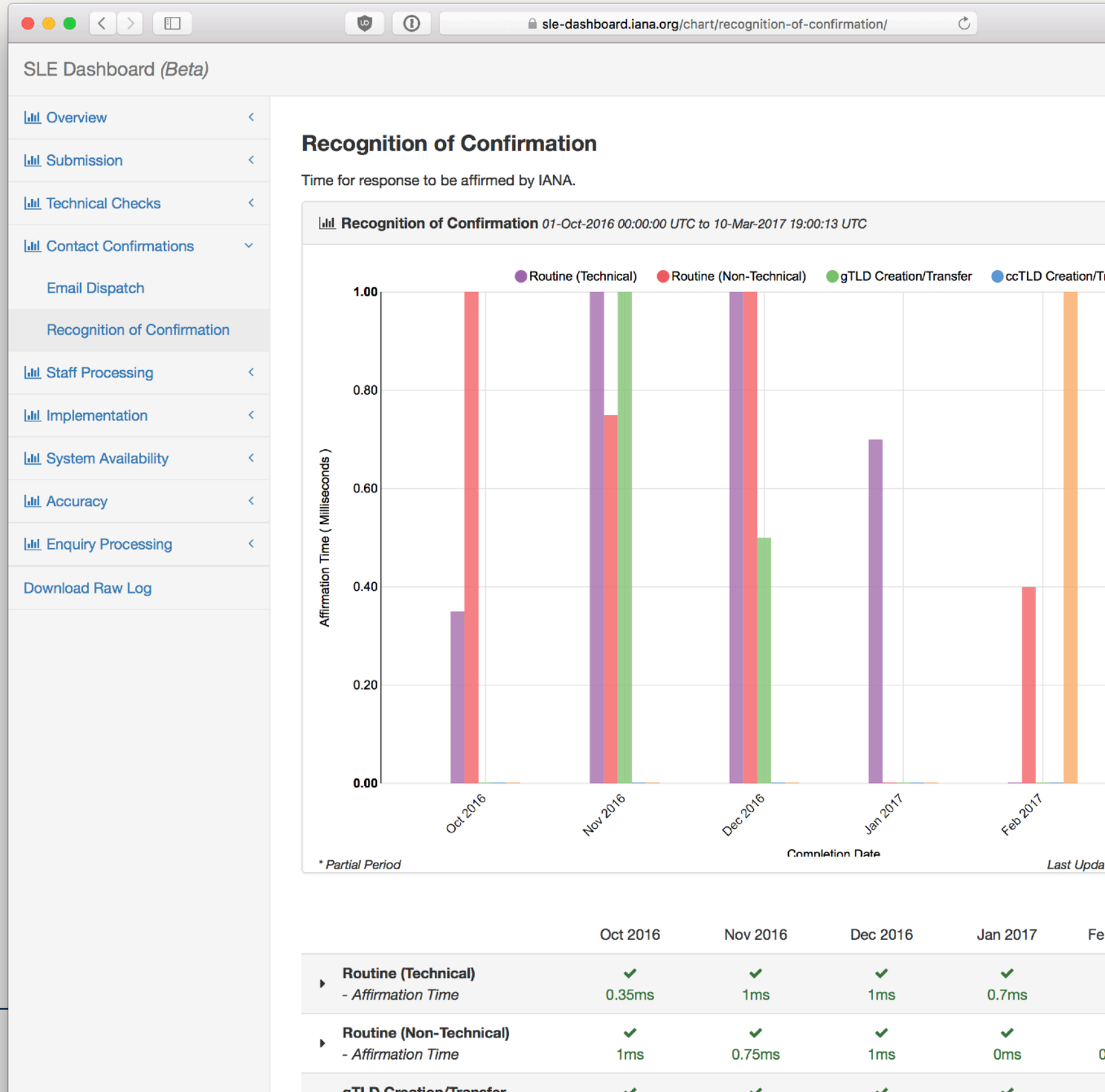
PTI produces monthly reports on its performance for the Customer Standing Committee (CSC).

iana.org/performance/csc-reports

SLE Dashboard

The SLE Dashboard provides real-time reporting of performance metrics defined by the naming community for root zone management performance.

sle-dashboard.iana.org



FY18 PTI Budget

Elise Gerich

FY18 PTI Budget

- At a special meeting on 18 January 2017, the PTI Board approved the FY18 PTI budget
  - https://pti.icann.org/en/pti/adopted-board-resolutions-special-meeting-of-the-pti-board-18-january-2017#1.rationale

- The ICANN Bylaws call for a Caretaker IANA Budget, and the PTI Board proposed the FY18 PTI Operating Plan and Budget be adopted as the "Caretaker IANA Budget" described in Annex F to ICANN's Bylaws. This Caretaker Budget will be replaced by the most recently adopted PTI Operating Plan and Budget.

- The PTI Board submitted it's the FY18 adopted budget to ICANN, and the PTI FY18 budget will be rolled into ICANN's FY18 budget

PTI FY18 Operating Budget

The Operating and Capital Expenses budget table shows a summary of all expenses other than the $0.4 million allocated for the Root Zone Maintainer Agreement.

	PTI Operations Budget	
	FY18	**FY17**
Operating Expenses (including depreciation)	$9.5	$8.9
Capital	$0.1	$0.1
Total	$9.6	$9.0

US Dollars, millions

https://www.icann.org/en/system/files/files/pti-fy18-operating-plan-budget-23jan17-en.pdf

Technical Development & Policy Implementation

Kim Davies

Technical Development & Policy Implementation

- Root Zone Management System roadmap
- New authorization model
- Implementing the FOI recommendations
- Rolling the Root Zone Key Signing Key

Root Zone Management System

Planned updates to existing system

New automated workflows

New DNSSEC algorithm support

Next-generation rearchitecture

New authorization model

New technical check implementation

New customer API

New security options

FOI implementation

New automated workflows

- Routine change requests are currently sent between PTI and Verisign via EPP.
- Three business processes are still manually communicated:
  - Changes to the authorities for the root zone
  - Deletion of a TLD
  - Escalation of a change request to be an “emergency”
- Aim is to have 100% of interactions communicated via EPP later this year
  - Stipulated in the Root Zone Maintainer Agreement

New DNSSEC algorithm support

- Current suite of algorithms were those supported in 2010 with comprehensive software support.
- New algorithms, particularly associated with elliptic-curve cryptography, are now available.
- Aim is to support new algorithms and digests as mature implementations are available.
- Deprecating algorithm and digest types to be left for future consultation on technical checks.
- Under active evaluation by development teams.
- Should we consider whether to allow untestable algorithm types in the root zone?

Algorithm Types
DSA/SHA-1
RSA/SHA-1
DSA-NSEC3-SHA1
RSASHA1-NSEC3-SHA1
RSA/SHA-256
RSA/SHA-512
GOST R 34.10-2001
ECDSA P-256 SHA-256
ECDSA P-384 SHA-384
EdDSA 25519
EdDSA 448

Digest Types
SHA-1
SHA-256
GOST R 34.11-94
SHA-384

New authorization model

- New mechanism to address pain points our customers see with the current method of submitting and approving root zone change requests.
- Find a mechanism that is flexible to allow for different configurations.
- Key foundation is decoupling the “authorization” and “published contacts” pieces of being a TLD contact.
- Seeking feedback as we commence development.

New authorization model

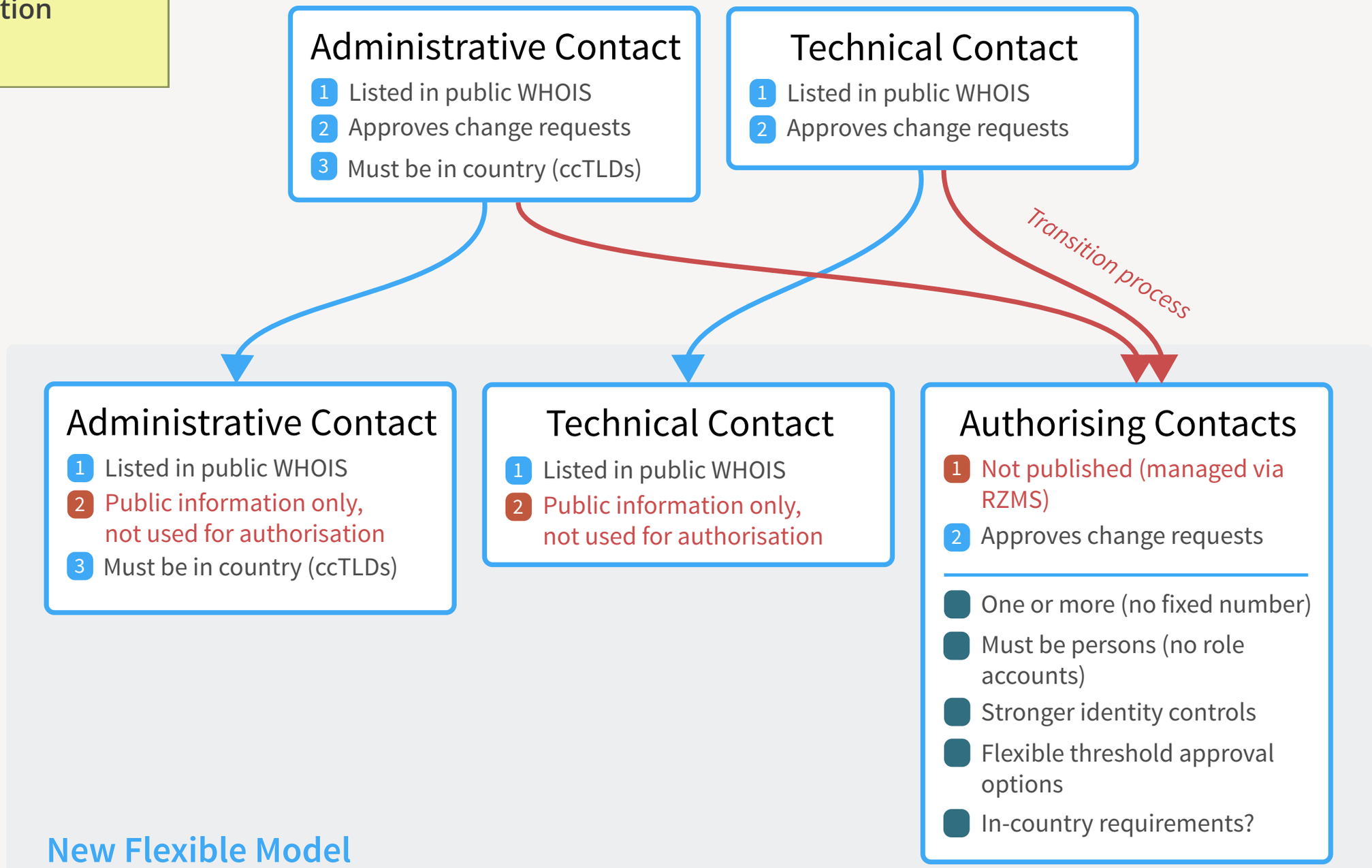
Administrative Contact

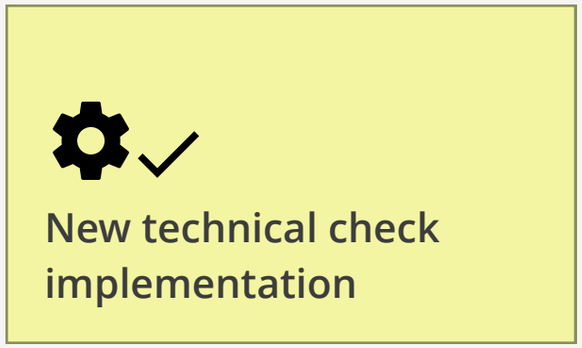
1. Listed in public WHOIS
2. Approves change requests
3. Must be in country (ccTLDs)

Technical Contact

1. Listed in public WHOIS
2. Approves change requests

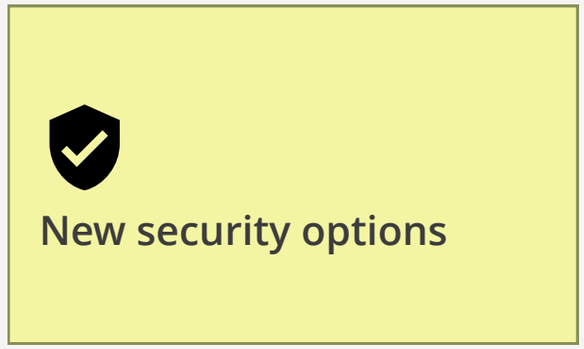
New authorization model





- Separating the technical check processes into a separate system.
- Can be maintained independently of the RZMS.
- Published openly.
- Richer reporting and analysis.
- Comprehensive debugging logs kept for each test run, customers can view using self-service mechanisms.
- Better parallelism to address potential delays in current approach.

- Provide a mechanism for customers to interact with RZMS programmatically (using tools rather than manually interacting with website).
- Removes error-prone steps for customers with large portfolios
- Provides easy mechanism to perform bulk operations (submissions, status checking, etc.)



- Add two-factor authentication capability
- Migrate from role accounts to person based accounts
- Eliminate email-based submission
- Comprehensive audit trail available to customers to see who did exactly what, when.

FOI implementation

- Implement terminology changes associated with FOI recommendations (e.g. phase out “redelegation”, “sponsoring organization”, etc.)
- Implement process changes associated with redelegation process.
  - “delegation contact”

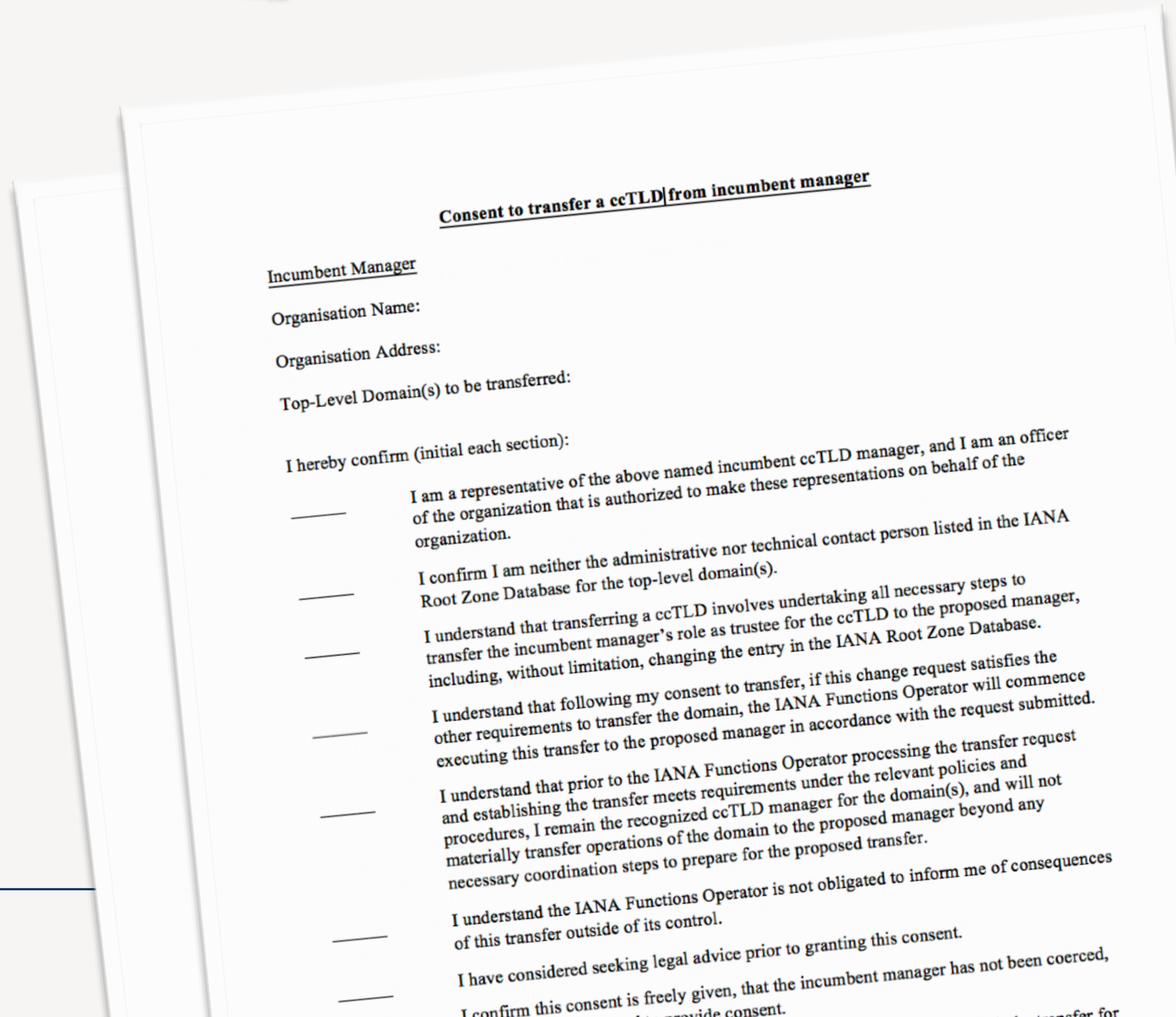
Framework of Interpretation

- Framework of Interpretation provides guidance that informs how we should implement future requests to delegate or transfer (redelegate) ccTLDs.
- Key implementation requirements that require new approaches that pose questions:
  - Informed Consent
  - Delegation Contact
  - Administrative Contact residency requirement

Informed Consent

3.2. The FOIWG further interprets section 3.6 of RFC1591 regarding *agreement* to the Transfer as requiring that the communication from the IANA Operator requesting a party's consent should clearly state (a) what the party is being asked to agree to and (b) what steps the IANA Operator will or may take in response to the party's (i) affirmative consent, (ii) affirmative refusal to consent, or (iii) failure to respond to the communication requesting consent. The IANA Operator should also advise the Manager to seek legal advice prior to granting consent. The requirement to secure informed consent does not obligate the IANA Operator to ensure that the party from whom consent is sought is informed about consequences not within ICANN or the IANA Operator's control.

- Use a pro-forma consent form that must be executed by the current manager.
- Spells out the requirements derived from the FOI recommendations.



Consent to transfer a ccTLD from incumbent manager

Incumbent Manager

Organisation Name:

Organisation Address:

Top-Level Domain(s) to be transferred:

I hereby confirm (initial each section):

_____ I am a representative of the above named incumbent ccTLD manager, and I am an officer of the organization that is authorized to make these representations on behalf of the organization.

_____ I confirm I am neither the administrative nor technical contact person listed in the IANA Root Zone Database for the top-level domain(s).

_____ I understand that transferring a ccTLD involves undertaking all necessary steps to transfer the incumbent manager's role as trustee for the ccTLD to the proposed manager, including, without limitation, changing the entry in the IANA Root Zone Database.

_____ I understand that following my consent to transfer, if this change request satisfies the other requirements to transfer the domain, the IANA Functions Operator will commence executing this transfer to the proposed manager in accordance with the request submitted.

_____ I understand that prior to the IANA Functions Operator processing the transfer request and establishing the transfer meets requirements under the relevant policies and procedures, I remain the recognized ccTLD manager for the domain(s), and will not materially transfer operations of the domain to the proposed manager beyond any necessary coordination steps to prepare for the proposed transfer.

_____ I understand the IANA Functions Operator is not obligated to inform me of consequences of this transfer outside of its control.

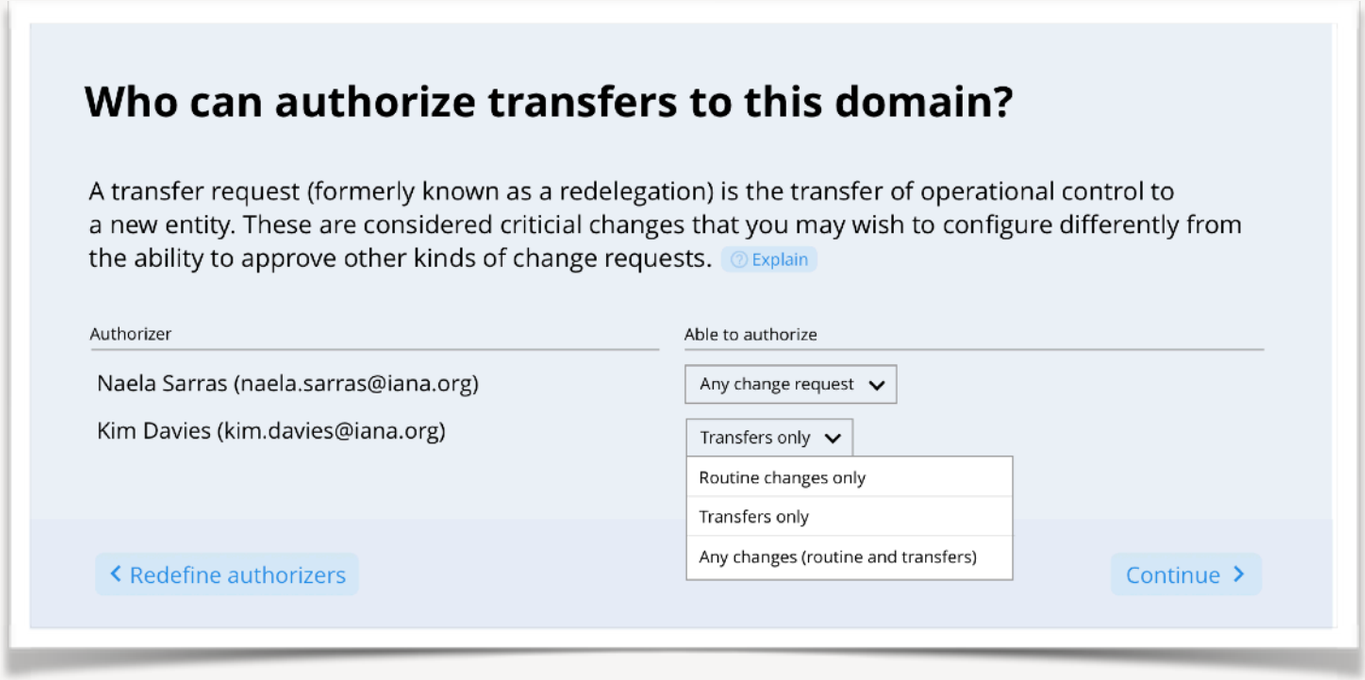
_____ I have considered seeking legal advice prior to granting this consent.

I confirm this consent is freely given, that the incumbent manager has not been coerced,

Delegation Contact

> 3.1. The FOIWG interprets section 3.6 of RFC1591 to require that the IANA Operator only seek consent for a Transfer request from the incumbent manager and the proposed manager. The IANA Operator should not seek consent from the Administrative or Technical contacts.

Our proposed implementation is to allow authorization contacts in the new model to be configured as “delegation contacts” or not. The ccTLD manager is empowered to nominate which of their contacts are allowed to approve transfers.



Questions

> 3.1. The FOIWG interprets section 3.6 of RFC1591 to require that the IANA Operator only seek consent for a Transfer request from the incumbent manager and the proposed manager. The IANA Operator should not seek consent from the Administrative or Technical contacts.

- **Is this requirement satisfied by the new authorization model?**
  - Admin and Tech contacts are separated from authorization responsibilities.
  - Authorization contacts can be configured to be for transfer or non-transfer requests only.
- **Is it sufficient for this pro-forma to be electronically accepted via the RZMS interface, or should something else be required?**

Questions

7.The FOIWG interprets the requirement that there be an administrative and technical contact for each domain including, for ccTLDs, an administrative contact residing in the country (section 3.1 of RFC1591) to mean, as a general rule, that the manager must confirm, and the IANA Operator must be able to validate, that the administrative contact resides in the country or territory associated with the ccTLD. This establishes a clear intention from RFC1591 that there be local (in the country or territory associated with the ccTLD) presence.

- **Is this requirement satisfied by the new authorization model?**
  - Administrative Contacts can continue to be required to be “in” the country, but may just be roles like a generic helpdesk.
  - All authorizers, and all substantive operations, could potentially be out of the country.
  - Does there need to be some test of materiality for being based in country?

KSK Rollover

- ✓ Replacing the Root Trust Anchor for the first time
- ✓ Becomes operational in late 2017
- ✓ Before then, DNSSEC implementors must update their trust anchor with the new one we published in February
- ✓ ICANN in middle of awareness campaign.

iana.org/dnssec

Feedback welcome.